

Editorial JOURNAL BOX

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EDITORIAL

Rising costs are again forcing us to try and economise so that we can remain within our means. The largest part of our expenditure is on Journal and its associated costs. There is nothing we can do about the postage rates, or the typing, so all that remains is the printing, or the format, or both. We have already reduced the number of Journals to the minimum, so that does not leave us with many options.

The biggest problems still remains and that is what do we print? It seems that most of our more regular contributors have written themselves out. I hear that West Australia is going to emulate Queensland, and come up with enough material for at least one Journal. Meanwhile, I will continue to borrow material from other magazines or from old Journals. One day we should try and reproduce more of the original Journals, because I believe many of them have never been seen by most of our present members. The only problem seems to be the costs, as most of them were over 50 pages, and there were a lot of diagrams that will need to be redrawn.

However, someone may come up with the perfect answer - the one that will please everyone!!

Rex Little
EDITOR

ON THE COVER

A scene from the past.
Welshpool Station

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PRESIDENT'S CORNER



Our Editor, Rex Little, has given me a gentle reminder that it is a long time since this heading has appeared and that the time had come for me to put pen to paper.

Exhibitions conducted by the NSW, WA, Victorian, Queensland Branches and Nepean Sub-Branch have attracted large crowds and have shown that the interest in our hobby has not waned. It was my pleasure to visit the 1980 Victorian Branch Exhibition and be able to renew old friendships. Once again may I say thank you for your hospitality and very friendly welcome which I received.

Due to the efforts of certain members who have prepared articles, the Journal is once again presenting interesting reading. Congratulations are due to all concerned in the preparation and publication of Journal and their efforts in getting the issues back on time. May I take this opportunity to express the hope that more members can see their way clear to prepare 'general interest' articles on prototype, layouts and helpful hints, which nowadays are sadly lacking in overseas publications and, in many ways can be of assistance to fellow members. Possibly the time has come for the COM to appoint an independent tribunal to judge all articles appearing each four issues, namely September to June each year, and on their decision making an award to the author nominated. Members are invited to write to Rex Little expressing their thoughts on this matter for inclusion in 'Pop Valve'.

Despite previous comments in the Secretary's Desk, we still have some members asking why the Journal does not go on public sale. This has always been and will continue to be a house magazine as our costs would soar ast-

ronomically and would mean poorer presentation if we were to pursue this matter.

Currently our membership totals 809, a drop of 22 on the previous year, the majority not renewing have been students who, through having to devote their time to school studies do not see their way clear to continuing their membership, or have lost interest due to the fact that they wanted everything handed to them rather than asking questions and getting answers to their problems. In reading publications from overseas, this problem is world wide. In other words, don't be an ostrich and bury your head in the sand, rather if you have problems, do not be afraid to ask, there is always a fellow member prepared to assist.

In conclusion, the time for renewal of membership is with us again and I would strongly urge members to avail themselves of the family membership if applicable, and hope that your interest in AMRA does not wane.

Keith J Wilcox
Federal President

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LAMENT FOR THE PASSING OF THE STEAM LOCOMOTIVE

By Black Five

The romance of the railways is closely linked with the steam locomotive. Who has not listened on a still night to the whistle of a passing train - sometimes short and sharp and sometimes long and drawn out? Who has not been stirred by the sight of an approaching express, while waiting at a level crossing, and the rhythm of the exhaust beats and the billowing clouds of steam.

So what! Progress marches on. We are well rid of those dirty inefficient machines now replaced by diesel electric locomotives bringing benefits to owner, passengers and crew.

Pause a moment engineer and consider the nature of the change that has taken place. There was a time when the look of a locomotive could tell you what railway it belonged to; a Victorian steam loco could never be confused with one of its two neighbouring states, NSW and SA. Now also you can tell them apart only by the colour scheme and logo, pointers to a fundamental change in engineering in the railway departments. The steam locomotives were the Engineer's department and often bore the name of the current CME. They were designed by the department and must have been amongst the biggest single units of engineering produced in this country. The diesels of today are basically products of an overseas design and three companies dominate the Australian market - Clyde Engineering Company Pty Ltd for GM diesels, Commonwealth Engineer Pty Ltd for America ALCO and GEC Australia Ltd for English Electric diesels.

What progress? I believe that in order to achieve greater efficiency and economy we have in this country

sacrificed an area of original engineering design work. However, there are memorials to the Victorian engineers who designed these machines in a collection of preserved steam locomotives at the Australian Railway Historical Society Museum in Champion Road, Williamstown.

If you go to the museum to pay your respects and to admire the functional beauty of these obsolete machines you may care to ask yourself has the change to imported technology been of benefit to Australian engineers?

'Black Five'

\$15M SLEEPER ORDER

Reprinted from Engineers Australia - May/June 1980

A \$15 million order for supplying 800 000 concrete sleepers to Australian National Railways has been awarded to Monier Ltd.

The sleepers will be produced at the Company's Port Augusta factory and represent the largest single order for concrete sleepers received by the Company.

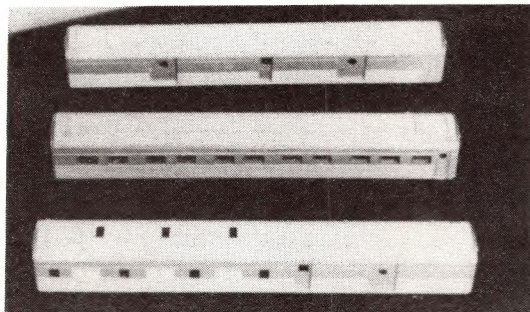
They will be used to complete the Tarcoola-Alice Springs railway which has 137 km to go and for the continued upgrading of the Port Augusta-Kalgoorlie section of the transcontinental railway.

Relaying sleepers on this line began in 1974. On the 1782 km length between Port Pirie and Kalgoorlie, 500 km have been resleepered with 800 000 sleepers. The total project will involve laying 2.7 million sleepers.

The new contract will keep Monier's factory in work for nearly 3½ years

and bring to 2.3 million the number of concrete sleepers produced or on order for ANR.

COMPLETING THE SOUTHERN AURORA SET



GRAEME PANTLIN

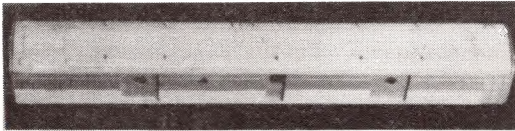
Being an Australian modeller with preference to New South Wales and Victorian rolling stock, I was excited when Lima's Southern Aurora Coaches arrived at the local hobby shop. A good look at the model assured me that they were a good representation of the prototype and that with a bit of black paint and underfloor gear, they would look rather mean running around with a VR X class or a NSW 422 leading the way. But to give it that something more appearance it would need a mail van up front and a power van bringing up the rear. I faced the same problem, and like most Australian Modellers 'If you want it, ya gotta make it' I was told. Having never attempted to scratchbuild or even kit bash a passenger car, I thought, why not? I would have nothing to lose by giving it a try, and a lot to gain if successful.

The first step was to obtain outline diagrams from the N.S.W. PTC Archives section of both cars and go to Spencer Street Station for a few photos. The next move was to start the conversion.

Armed with a metal ruler and a sharp craft knife, I made a cut the full length of the car at the top of the fluting, and cut down at the end of the sides so that all the windows and top half of the door came away. As that is the only common cut to both cars, we will concentrate on the MHN class mail van first as this is the easier of the two. Using the door end of the model as the Dog Box end mark out and cut all the doorways in the model. Next move is to cut a sheet of styrene the full length of the inside of the car and as high from the inside bottom of the car to the height of the side. In this piece of styrene, cut out all the windows making sure that when the styrene is in place, the windows match up to the centre of all the doorways you have already cut out.

When satisfied with the window position glue the styrene sheet in. The next step is to build the sides up on the styrene. Cut lengths of styrene to fit between the doorways and also thick enough to build it out so that

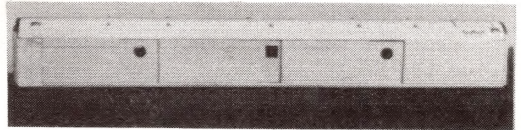
it is level with the existing side fluting. I found the best method here was to cut a fairly thick piece of styrene to the size required and then cut another piece of 20 thou as the final piece. This is because the 20 thou is easier to file to fit if your original cut to take the windows out was a bit rough in spots. When fitting the 20 thou sheet to the section where the original door was, cut it to fit between the edge of the original door to the edge of the luggage door opening. This is so that you can fit the Dog Box detail in the door area. Once you have glued all these pieces in place, you should be able to see the model taking shape quite well.



The next step is by far the hardest for this car, but, with a little bit of patience, it shouldn't be too difficult. The method I used to fit the Dog Box is as follows. File all details out of the original door of the model, then build it up so that it is level with the thick piece of styrene used to build the sides on. For the Dog Box door detail I used Slaters 10 x 25 thou micro strip cut to fit, to represent the louvres. These strips were glued between a strip of narrow 20 thou which was glued in the middle of the Dog Box area running top to bottom. These narrow strips should be a little bit wider than the Slaters micro strip. When in place, lightly scribe a line down the middle of them to represent the door joins. Halfway down this area was glued a horizontal piece. All this work represents the door frames of each Dog Box compartment. In the gaps left was placed all the micro strip. The top of all the Dog Box detail should be a scale 1'3" from the top of the sides. This area left is built up with a plain piece of 20 thou styrene.

The final detail for the sides is the Guard's side mirrors which are Slaters strip cut and glued in place, and the top ribbing which runs the full length of the car. This fluting was done by gently cutting a line with a blunt craft knife and leaving the raised lip which results.

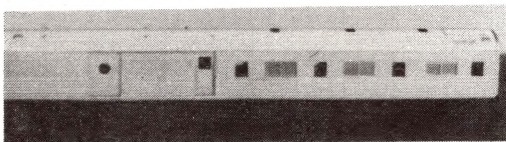
Not knowing how to replace the roof detail on the model with the roof corrugations already there, I left them. Maybe someone else can come up with an answer to this problem. Leaving this detail on doesn't really detract from the appearance of the model. Next with the roof is to cut all the window glazing off. When done, the roof should fit right down. All that is required now is to fit some torpedo vents and you should have a reasonably good representation of the van.



The PHN class power van is constructed roughly the same but with a bit more work. The first step is to cut the door out and move it to its proper position. Once this is done cut out a sheet of styrene to fit the inside of the van just like it was done for the mail van. Again, cut out the door windows in place and also make holes for the windows in the power compartment. These holes I make over size so that when the final window detail was done, the thickness of the sides was not apparent. Glue this sheet in place then commence with the side detail. The two areas between the ends of the car and the luggage door, and the luggage door and the Guard's door was done with the same method as the mail van. The sides of the power compartment are one thickness of styrene and not two as in all the other side work. In this piece is cut the windows to correct size plus the openings for the louvres. Make

sure all the windows have a clear fit, and then glue in place. Now for the worst part of the model, the louvres.

For the louvres, I again used Slaters micro strip. I can't recall what size it was, but I know it was the widest possible strip available and was 10 or 15 thou thick. These strips are glued at an angle one on top of the other at approximately 45° with a slight gap between each. Once glued in place stick a strip of 10 x 25 though down the middle, vertically, of each opening. All this louvre work takes time and patience, if you're not in the mood for modelling don't try it. You will only make a hash of it.



Once the louvre work is finished, glue the Guard's lookout on and scribe the top ribbing in place the same as was done on the mail van.

The roof gets the same treatment as the mail van, plus the exhaust vents for the engines have to be made. All I did here was to cut holes in the roof and then back them with styrene. The outline diagram doesn't show the vents position on the roof so it is a matter of working off photos and personal observation.

For painting the models, I found that Floquil old silver (RR 100) was as close a colour to match with 'Limas' colour. Spray the car and roof all over and when dry, paint the underfloor plus the very bottom of the sides matt black. All that is needed now is window glazing and to glue the roof in place. Mn'J decals supply the necessary lettering for the vans and presto, with a few sleeping cars in-between you have a complete Southern Aurora.

TO CONCLUDE

I have not tried to offer any dimensions for the model, only my method of construction. Too many dimensions in the text makes it sound harder and more confusing than what it really is. Besides you would probably check the measurements off the plan anyway. The models I make are not dead accurate, but they look close enough to be right, and I'm the only person I have to please with my models. My reference material for these models was NSW PTC Archives Office for Plans, Passenger Cars of NSW by Len Clark, and my own observation and photos.

FINALLY

As I said at the start, give kit bashing and scratchbuilding a try, you'll never know if you can't make a model if you don't try, will you now?

NSW high speed trains a 'pipedream'

by Mike Smyth

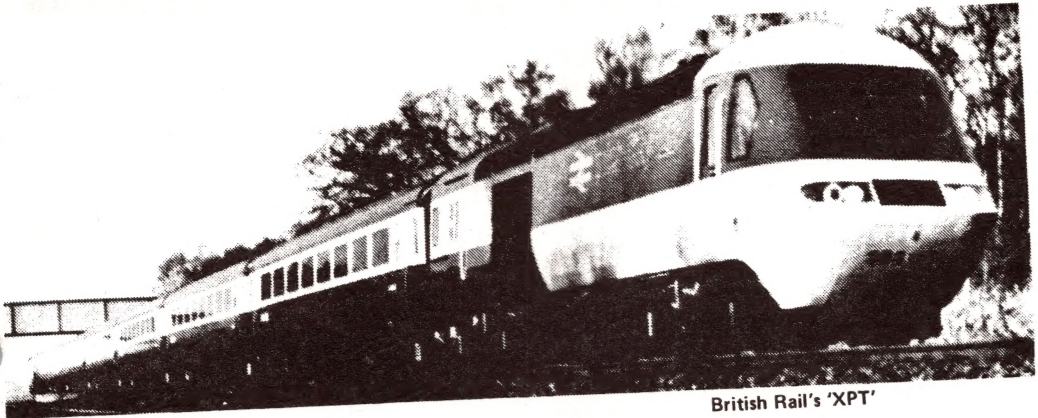
Reprinted from Engineers Australia -
May/June 1980

Really high speed rail services, such as exist in Britain and Europe, are nothing more than a 'pipedream' according to Alan Reiher, former State Transport Commissioner.

In an address to the IEAust's Sydney

Division annual lunch he said that at the best the future of long distance passenger services is for fewer, better riding and somewhat faster services to fewer destinations.

These trains, costing \$5-6 million,



British Rail's 'XPT'

would be capable of carrying 200 passengers in lightweight stock at speeds up to 160 km/h and could operate on fairly long sections of existing track.

Reiher's views fly directly in the face of the Stage Government which, in February 1979, committed itself to spending \$45 million on new railway equipment to include the XPT high speed train, based on the British intercity service.

When asked for comment, a PTC spokesman declined to say anything.

To justify this expenditure on new trains, he said, other facilities, including sleeping cars must be abandoned and the number of long distance services must be reduced. Lightweight trains and faster services must force a careful review of the whole fare structure if that is to be economically viable.

Reiher, a civil engineer, is on extended leave until the end of June since resigning his \$60 000 a year job at the end of March. He had then served about four years of a seven-year appointment.

Last November the NSW State Government decided to abolish the Public Transport Commission and form a State Railway Authority and the Urban Transit Authority, both under part-time chairmen on salaries of about \$40 000 a year each. Transport Minister Peter Cox told Reiher in November that his job would not exist after June and ordered

him to take extended leave. When he resigned in March he is believed to have received a \$110 000 golden handshake.

Painting a gloomy picture of the health of the PTC said on average every man, woman and child in the State used public transport system 175 times a year. Last year PTC operations, including freight, cost each taxpayer \$92. Over the years the system has not received the funds necessary to keep it up to date.

Much of the rolling stock that was brought in when electrification started in the mid 1920s is still in use, he said. Spare parts are now unavailable and either have to be expensively purpose-made or robbed from other stock. Maintenance facilities are 50 years old and overall train reliability is poor, which in turn adds to running costs.

He said there are about 2000 delayed trains in every 28-day period. Half of these delays are due to mechanical or electrical failures within the trains and another 25 percent of delays are due to signal failures.

Reiher said the lack of investment has meant a decline in the attitudes and performance of the staff who have turned inward to protect their jobs and built up a strong resistance to change.

Stressing reliability as the major attraction to greater patronage, he said: 'Our transport system has a long

way to go to be reliable enough so we can be reasonably assured it will attract to itself the patronage and use which its inherited advantages would suggest.

'Reliability depends on well-designed and proved equipment appropriate to the task which leads to high standards of preventive maintenance. These standards are yet to be achieved in many systems, including our own.'

Turning to costs he said: 'It will take at least another four or possibly five years at about the present level of annual investment of \$200 million to bring the NSW rail system to what I would regard as a satisfactory standard overall. This includes electrifying some sections of track where freight demands justify it and it would also include buying new locomotives.'

He said of the 550 total locomotives, only about 10 percent are electric, and all but 10 of the electrics were bought in 1957, making them more than 20 years old.

He questioned how long the system can operate when its annual costs are \$890 million compared with total earnings of \$440 million.

'This cannot be corrected by accounting ingenuities nor should it be corrected by cross subsidies from the profitable to the unprofitable parts of the service' he said.

'It depends on a pricing policy and charges of what the market will bear. To beat the deficit also depends on more people using the service, rationalising the system with better efficiency and maintenance.'

Illustrating the carrying capacity between a car and a typical suburban train, Reiher said that over an equivalent right of way, a train can carry 40 times as many passengers as a car.

'The infrastructure of the existing railway system could cope with a 50 percent increase in capacity without major modification or investment', he said.

Although last year fewer people travelled by rail, more travelled by bus

and ferry. Of the 390 million public transport passenger journeys in Sydney and Newcastle, 200 million were made by bus, 180 million by rail and 11 million by ferry.

There is not enough information available on rising fuel prices to be able to predict how many more people will turn away from their own cars to public transport, but Reiher believes there will be a modest increase in patronage for some time to come.

In the continuing battle against rising operating costs he said the Eastern Suburbs Railway was completed as a private model to establish reduced manning levels.

On freight he believes the system can eventually break even and perhaps make a profit. He pointed out that 77 percent of the total tonnage carried is in four commodities - grain, coal, containers and steel. These four account for more than 90 percent of the freight system's earnings and under normal conditions are profitable. It is the 3.5 million tonnes of miscellaneous freight that because of its handling problems is the major loss factor.

He said it is important that an alternative be found to moving this type of traffic.

Further attempts to improve profitability are being made by the Commission. About 6000 of the 8000 four-wheeled freight wagons have been scrapped and replaced by fewer trucks having two four-wheeled bogies. This has decreased the number of wagons, but has increased the volume of freight carried. Large scale block trains are now carrying grain and coal.

Freight wagons are now being weighed in transit and trains weighing up to 2356 tonnes are now running.

For the future, he said, higher power locomotives will be needed, probably with high adhesion levels through limited slip control devices on the wheels. Better track and electrification of the high-density freight lines, centralised train control facilities, and more well maintained high speed

bogie wagons for all classes of bulk traffic will help to control costs and give a better service.

To further streamline the system, bogie exchanges could be improved with some short extensions of the standard gauge track. There are still some key sections of railway that are not standard gauge, he said.

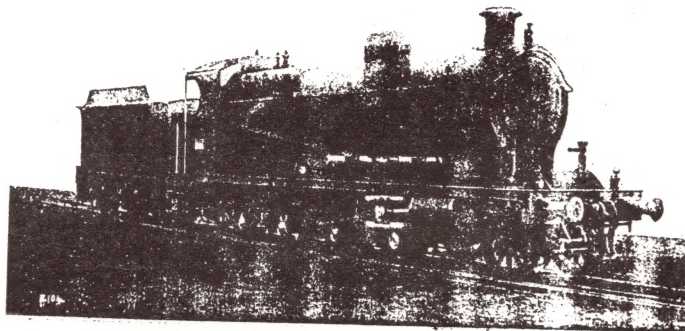
'If we want to pick up containers from Melbourne's port, they have to be put on a road vehicle and taken to the nearest standard gauge point, he said.

On the system as a whole, he said: 'We need a series of national objectives in transport. More can and should be done and I regard this task as urgent.'

The R.O.D. 2-8-0

Drawing and notes by Charles
Godfrey

Scale: 4mm. = 1ft.



Reproduced in Journal, courtesy
Charles Godfrey

In 1911, Mr J G Robinson introduced on the Great Central Railway his large 2-8-0 freight locomotives, which were classified 8K. These locos were fitted with water pick-up gear and vacuum brakes.

During World War 1, the Ministry of Munitions chose this design of loco as a standard type when locomotives were urgently required. Private builders as well as the G.C.R. built a total of 521 locomotives of this type. Robert Stevenson and Co built a batch of these locos at their Darlington works, and R.O.D. 1666, the subject of the drawing, was one.

For war service slight modifications were made to the G.C.R. design, principally the fitting of continental draw-gear and steam heating connections, and Westinghouse brake equipment. As full details of the Westinghouse equipment are not available, it has not been shown on the drawing. The pump, however, was mounted on the right side of the

smoke box. Similarly details of the lifting jacks carried on the footplate ahead of the smoke box are not available, so they have also been omitted.

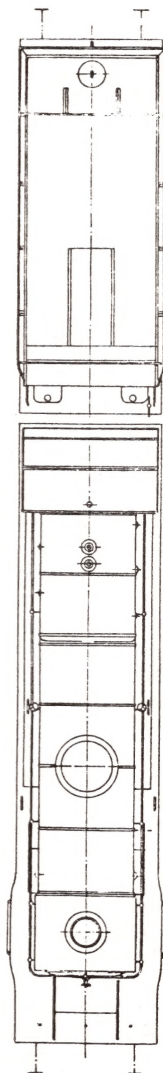
After World War 1, the R.O.Ds. were brought back to this country where many found their way onto various railways. Some even went as far away as China and Australia.

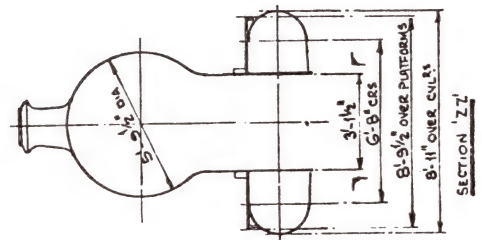
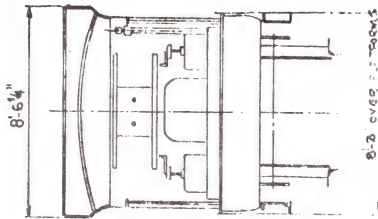
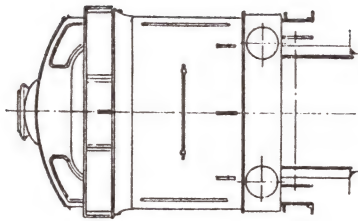
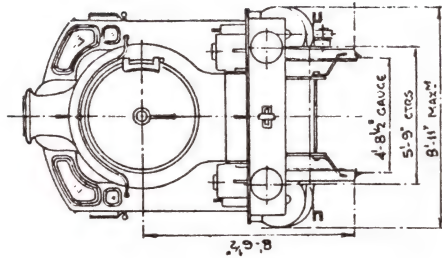
After grouping in 1923 the L.N.E.R. arranged to purchase a large number of these locos and R.O.D. 1666 passed to that company. After an overhaul in which the continental draw gear, etc was replaced by oval headed buffers and three-link couplings and the Westinghouse air brake equipment was removed she entered traffic as 6345, a member of class 04/3. In 1946 her number was changed to 3684 and she was scrapped as British Railways 63684.

Several of the 04s were taken over by the War Department in World War II and were used in the Middle East, a few

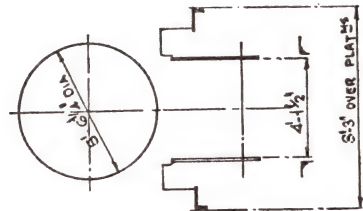
There is one inaccuracy on the draw-

ing. The centre tender axle springs were slightly longer than the outer springs, but as most modellers would use standard white metal castings, all springs are shown identical.

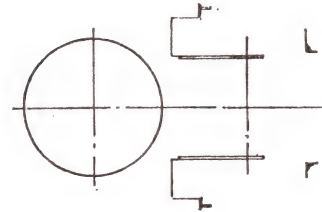




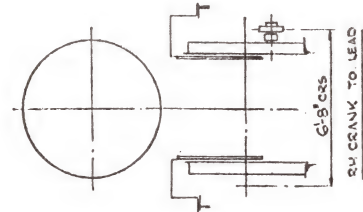
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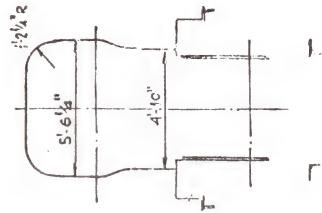
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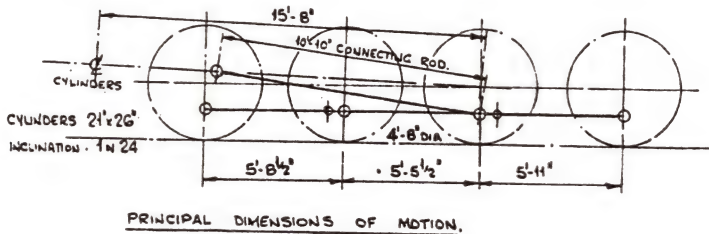
SECTION 'XX'



SECTION 'VV'



SECTION 'UU'



PRINCIPAL PARTICULARS

Cylinders	21 in x 26 in
Driving wheel diameter	4 ft 8 in
Boiler pressure	225 lb/sq in
Tractive effort	35 520 lb
Loco weight (in working order)	73 tons 4 cwt

Tender weight

47 tons 6 cwt

(in working order)

THE R.O.D. IN NSW

Quite a number of these locos saw service on the Hunter Valley coalfields under the operation of J and A Brown.

Perhaps some member may care to send in more information about these locos.

REVIEW OF SENTINEL 10.5mm WHEELSETS

by P J Betts

These 16.5 mm gauge wheelsets have a non ferro-magnetic stainless steel pin pointed axle 26 mm long, nickel silver tyres and plastic centres with 8 spokes. Overall they are claimed to comply with AMRA standards.

Two wheelsets were received from the manufacturers, one with a back-to-back measuring 14.40 mm and the other 14.45 mm. It was found to be fairly easy to move the wheels on their axles therefore any back-to-back discrepancies could be rectified. It was not so easy to move the wheels however, that there would be a likelihood of them moving accidentally.

All the wheels were found to have a flange depth of 0.85 mm which is just shallow enough for them to be used on code 70 track without hitting the rail fixings, but deep enough for them to be used on all but the most poorly laid track. The effective flange widths were found to be 0.80 mm with a 30° front

taper angle. The resulting wedge shape should make the wheels excellent for overcoming irregularities that are always likely to occur at track and base board joints. The nose of the flange is well rounded giving it an excellent appearance when compared with the prototype.

The width on all wheels are found to be 2.8 mm which is slightly above the 2.7 mm recommended to AMRA standards and this results in a somewhat coarse appearance in this respect. However, the extra width will help towards smooth running through pointwork built to coarser scale standards.

The wheels were found to be exceptionally concentric and affixed exceptionally square with respect to their axles. Also, it was found near impossible to move the tyre on its plastic wheel-centre.

Overall, it is considered that these wheelsets are of very good appearance

and should give a performance better by far than any other fine scale wheelset on the market. The only slight criticism is that the effective flange width is near the upper limit of tolerance of 0.85 mm, making it desirable to set the back-to-back slightly below the recommended value of 14.4 mm in order not to approach critical limits for back-to-front and front-to-front. We would

recommend that the manufacturers aim for a back-to-back of 14.35 mm rather than the 14.45 mm for which they claim to be aiming.

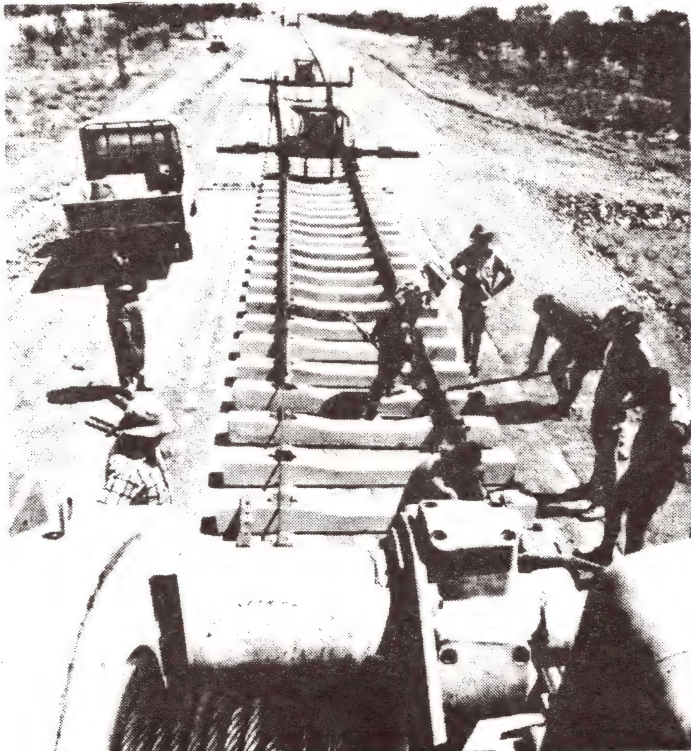
In conclusion, this reviewer would like to congratulate INDI Enterprises for producing an excellent product and would concur that their claim that theirs are the world's best wheels. May we hope that their range will be extended soon.

TARCOOLA-ALICE RAILWAY

Reprinted from Engineers Australia
7 March 1980

The new railway, striking north from the Trans Australian Railway at Ceduna, to Alice Springs crossed the border in-

to the Northern Territory last November (Engineers Australia, 11 January). It is an all-weather standard gauge



Rail threading machine in operation on Tarcoola-Alice Railway

line and will replace the famous narrow gauge Ghan railway which runs from Port Augusta to Alice Springs.

The South Australian section of the new rail link, submitted by Australian National Railways, was given equal first place for the SA Engineering Award 'on the basis of a major engineering concept executed in inhospitable conditions within budget and ahead of time with due regard to conservation of energy and being a major project of the community at large and SA/NT in particular.

Work on the first stage of earthworks started in April 1975 and the line, costing \$145 million, is expected to be finished next November, a year ahead of schedules.

Construction of the 831 km long railway is involving seven million cubic metres of earthwork, mainly in embankments, and 52 bridges with a total length of 4000 m. The SA section of route is 563 km long.

Design of the track structure was heavily influenced by the need to provide for minimal maintenance in a remote and difficult area. Continuously welded rails were considered essential and the comparatively high cost of concrete sleepers was justified in a special evaluation by the Bureau of Transport Economics in 1972.

Bridges are founded below potential scour depth, with head room to pass floating debris. Cylindrical piers were used wherever practicable to min-

imise turbulence.

Run-on slabs at all bridge approaches provide a transition between the embankment and the structure for reduced track maintenance. Bridge spans are steel, or composite steel and concrete, designed for prefabrication and simple site erection.

According to ANR, the project demanded a new approach to tracklaying in order to assemble concrete sleeper/welded rail track 'over the end' without complex multiple handling of sleepers.

This was achieved by a simple and efficient way of handling the 137 m long welded rail lengths to first form a gantry runway and then go into place in the track. The result was that only nine men at the site could handle and lay all the sleepers and rails at the rate of a kilometre of track a day.

Communications for the line are provided by an integrated microwave/UHF radio system with a 300-channel capacity. Batteries powering the radio equipment at towers every 30 km are recharged by solar cell generators. ANR said this is the first major use of solar power planned in Australia for a purpose such as this.

The railway passes over the Lake Phillipson coal deposits and close to the Merrenie oil field in Central Australia. ANR said this will allow early exploitation of these energy sources and stimulate exploration for other resources.

PIRACY!

by 'Bunyip'

Reprinted from Journal No 109
March/April 1974

Ever since the early days of convict settlement in Australia, the inhabitants have shown contempt and disregard for rules and regulations. Australians will not conform to any accepted system and in most cases change those same

systems to suit themselves. An example of this is the brand of football played in the Southern States of this land. Any thing goes - complete lack of rules plus a lack of interest in the many other styles of international sport.

Yes, Bung Rulesoops. Aussie rules is the game.

Having this convict background assists the Australian in his feelings to the underdog, especially if the underdog is being hounded by the police. An example here is Ned Kelly who among other things was a robber and murderer, but still is a hero in our local folklore. The well known Australianism, 'She'll be right mate' is well and good unless the repercussions hit the statement maker where it hurts.

PIRACY - a term applied for taking something that does not belong to you. Piracy in Australia was quite evident, by folklore, in Albury preceding the Sydney-Melbourne standard gauge. At that stage in time, Albury had two main secondary industries, the second most important industry was the transshipment of goods between NSW wagons and Victorian wagons or vice-versa. The main secondary industry was transshipping goods between NSW and Victorian wagons into vehicles (road) not belonging to either system for resale to people other than the rightful owners. Pilfering is the respectable name given it today, but PIRACY would have been well suited.

Well Piracy has become evident in the Australian Model Railway field and it would be fair to say that most, if not all the local manufacturers have pirated one part of other into their products. Piracy, as applied here is the copying by one manufacturer of a part made by another manufacturer. It is not difficult to pick out the different parts used by the local manufacturer in the making of his master patterns. Without looking for excuses it would be fair to say that the offending manufacturer, has in most cases used basically the raw product and/or incorporated the pirated part into his own craftsmanship which resulted overall with a better product on the Australian market which in turn raises the standard of Australian prototype modelling.

However, here lays the problem modern science and the mass media has enlightened a large section of the modelling public on how to reproduce models in mass production form and this in itself is great, except there are more lazy (or incapable) modellers than willing workers. These lazy modellers buy a kit of a piece of rolling stock, and in turn reproduce same at a much reduced price, distributing same to all and sundry, thus limiting the sale potential of the kit.

Now this article is not to debate the legal or ethical point of piracy but it aims to bringing to everyone's attention the possible results. Apart from the fact that the parts reduce in size and clarity everytime they are reproduced, there is a long term shadow of doom surrounding the whole matter.

Being as brief as possible, the failing comes down to supply and demand. The local manufactive (hereafter known as the Bunny), markets a range of kits with a very small profit margin, aimed at making money and assisting the Australian models. Now one of these Roo's (hereafter known as the Goat), buys one of these kits and in turn reproduce and distributes them to all his mates (Roo's), who are no doubt grateful for they were saving for that \$3 kit and now he's saved money. Reproducing down the line the Bunny finds his kits are not selling so withdraws same from market and produces another kit only to have the same procedure happen over again. Looking into the matter the Bunny soon finds out that the others are pirating his products and thus leaves the manufacturing field after finding out why he has been dubbed a Bunny.

Of course the Roo's become most indignant that they cannot purchase any local kits and start hopping all over the hobby shop floor thumping their tails in anger. Had they been more careful and not assisted the Goat in his piracy he would not have found himself in such a stew. The Goat however is not moved by all this, for he is in

his own self satisfied little world, and he is not really concerned by the reality of life.

The fact that he has put a manufacturer out of business has little emotional feeling on him for 'those kits were only junk anyway', even though they were good enough for him to pirate. And so our little story ends with our Bunny in his hole, the Roo's in a stew, and the Goat quite happy that he has damaged the growth of Australian prototype modelling.

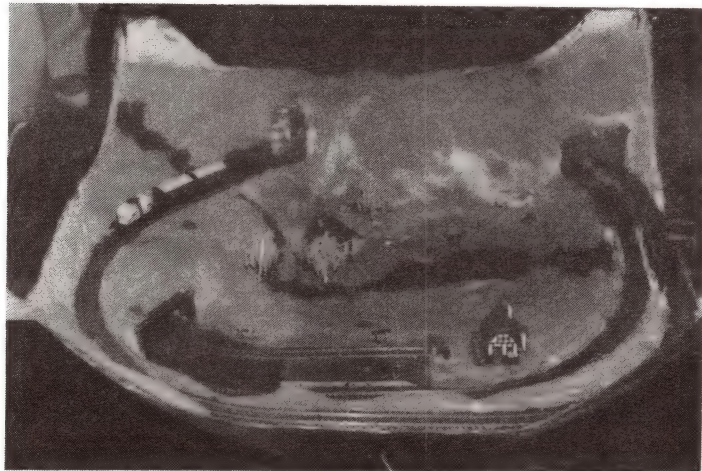
While this story may seem a little off hand, it has actually happened to one side of our hobby.

A few years ago it was possible to buy scale plans from many sources but due to the lack of sales these sources

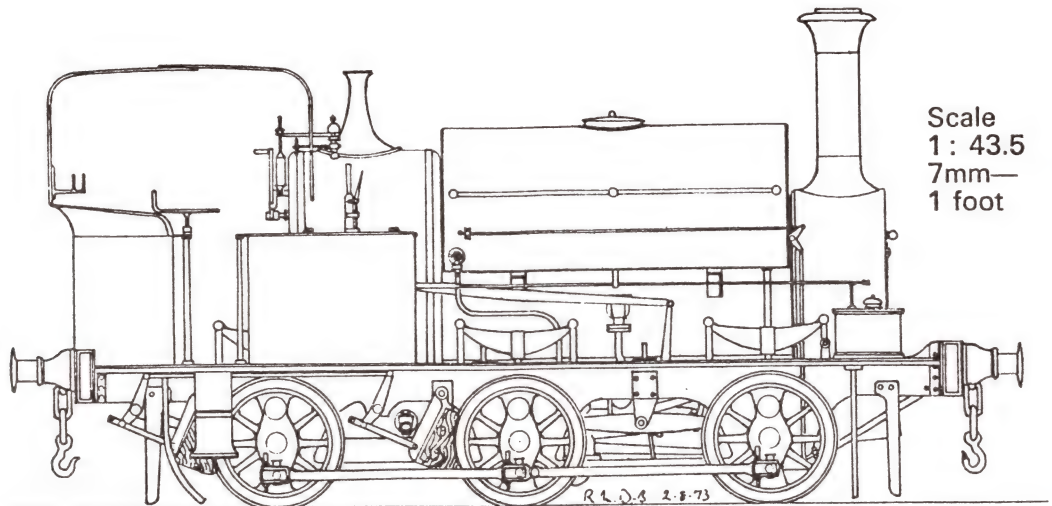
stopped the manufacture and sale of the plans. The plans were in fact well sought after but the system was to buy one plan, photocopy same, in turn distributing it among his mates. The result here was complete cessation of plan production which now makes it very difficult to obtain a correct drawing unless one is in the know.

Piracy is a killer and if accepted by the modelling public, it will kill off the local market. In reality it is enjoyable and rewarding to be able to make the master pattern oneself and not having to rely on someone else's craftsmanship. Yes it is good to be an independent modeller and not being a 'Copy Cat'.

HERE ENDETH THE FIRST LESSON!



Coffee table N gauge layout,
constructed by Craig Hartmann



Scale
1: 43.5
7mm—
1 foot

Manning Wardle Class M

Drawing and notes by R M Drake Brockman

Reproduced in Journal, courtesy
R M Drake Brockman

Within the limits of 1859-72 the next six coupled by Manning Wardle to come within the Durham-Newcastle area as far as I am concerned is the Class M, already represented by its modified form. Comparison of the two will show very little outward similarity.

Compared to the 'I' it is bigger engine and has had the Wilson safety valve cover replaced by one more akin to the GN pattern. There are sand boxes at both ends, the tank heater has gone, otherwise the fittings are similar. The tank is shown as being carried on two brackets and possesses a drain pipe forwards. The cylinders now 'fit' between and are carried by the frames.

The brackets in the rear of the cab are for the fire irons.

Two owners are recorded:
No 148 J Love, Durham, 1865

No 194 Black Boy Coal Co, 'Shildon 3"
1866

The main dimensions were as follows

Wheels	3'0"
Wheelbase	5'10" + 5'8" overhang to inner faces of beams front 4'0" rear 4'3"
Boiler (over cladding)	3'8" x 8'4" long Pitched 5'4" above rail
Firebox	3'6½" between frames widening to 3'10 5/8" (add 3" for cladding) (bare dimension given)

THE MANNING WARDLE IN NSW

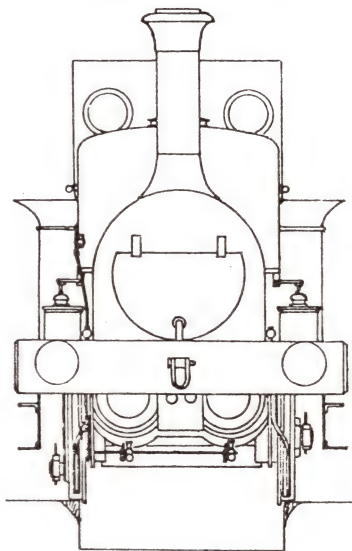
Two of these locos were ordered for the Camden Tramway and arrived in 1884. They replaced the standard Baldwin Steam Tram motor, which had been used since the line was opened in 1882.

Originally they were known as the 292 class, they were grouped with an earlier Manning Wardle 0-6-0t class 66 and three Vulcan 0-6-0t class 127 and formed the P127 class in 1890.

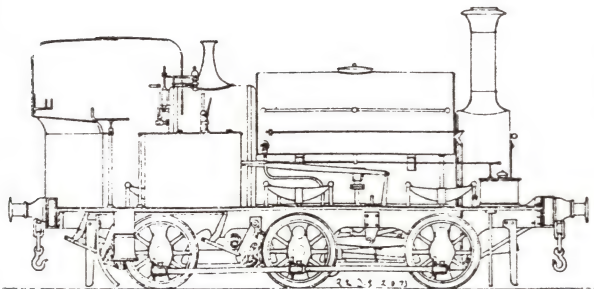
From 1901, the two locos worked the Carlingford Tramway on the acquisition of that line.

Some years later, they were sold to Hoskins Steelworks at Lithgow, where they assumed the names of 'Bunyip' and 'Bandicoot'. They continued in service until 1922, then not used till they rebuilt as one in 1927.

After the closure of the Steelworks in 1928, the loco spent some time at a colliery, but was later taken to Port Kembla Steelworks and given the name of 'Rat' and carried out shunting duties on the jetty until scrapped in 1934.

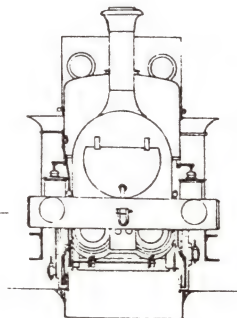


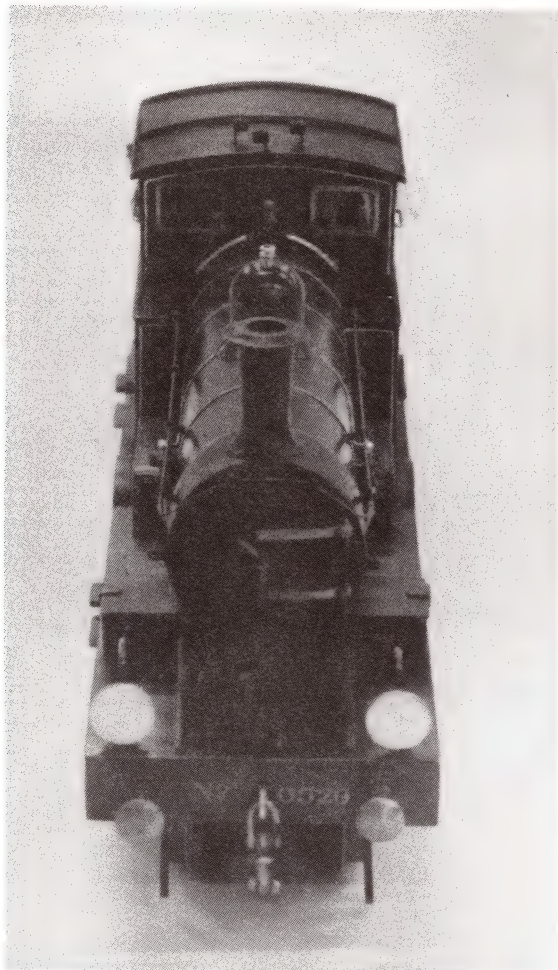
Tank	Width calculated as 4' 8" wide.
Footplate	3' 4" up, 7' 2" wide.
Chimney top	11' 7".
Cab sheets	3' 0" high.
Cab roof	6' 11" to centre of overlap above frames
Buffer beams	7' 7" wide, 6½" thick.
Buffers	3' 3" up × 5' 9" apart.



Original drawing
courtesy of
Hunslet Engine Co.

Scale 1 : 76.
4mm—1 foot



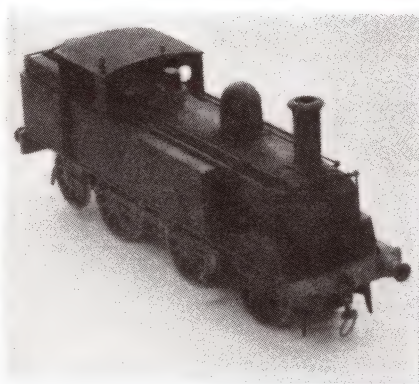


SECOND PLACE TIM DUNLOP CUP 1979
LSWR Adams 4-4-2T by Peter Adams

IN MEMORIAM

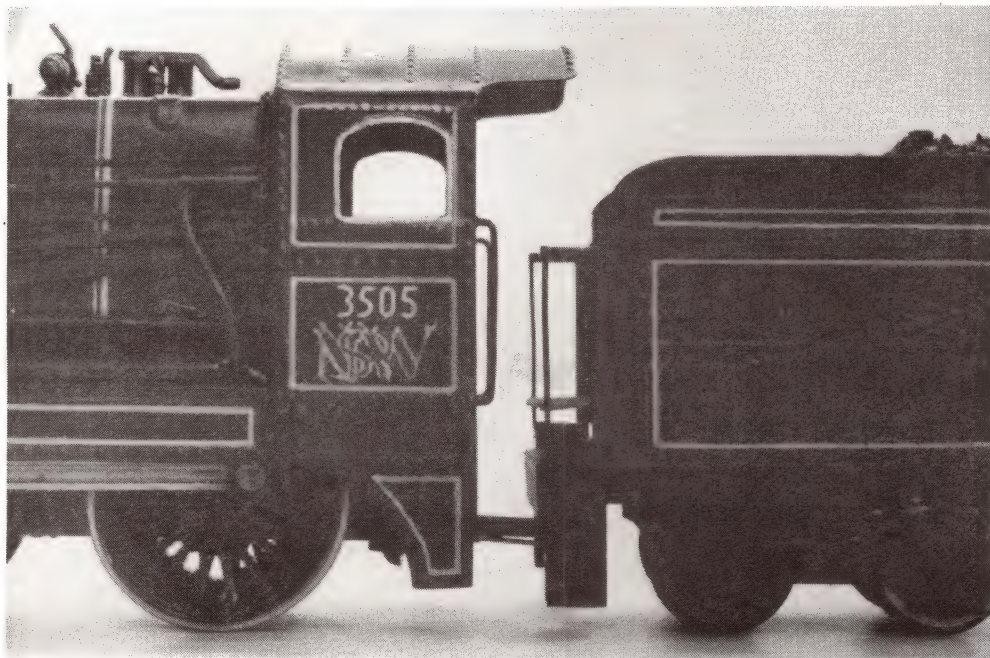
Alan Winslade

Deceased 30-7-80



FOURTH TIM DUNLOP CUP
LNWR Webb 0-6-2T
by Terry Wootten





SECOND FEDERAL CUP NSWGR 35 Class 4-6-0 by Ray Pilgrim



FOURTH PLACE TIME DUNLOP CUP 1979 LNWR Webb 0-6-2 by Terry Wootten

New Adelaide railcars raise comfort standard

Reprinted from Engineers' Australia -
February 1980

A fleet of 30 new diesel railcars is giving Adelaide suburban train travellers a new degree of comfort.

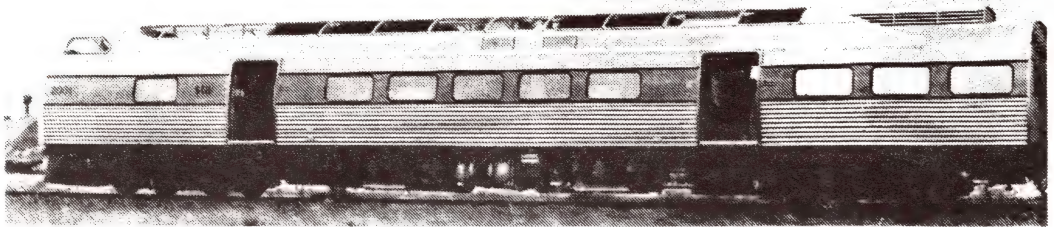
Air conditioning, carpeted floors and walls, fabric covered seats and patterned fibreglass mouldings provide attractive and comfortable interiors.

The exterior of the 24.99 m stainless steel cars is painted bright orange and curved sides are enhanced by an elevated driving cab on one end of each car. Used for the first time in Australia, the elevated cab gives a wide, clear vision ahead and allows a few passengers below the privilege of front window panoramic views.

Twelve power cars seating 72 and 18 trailers seating 106 are being supplied under contract to the State Transport Authority by Comeng Aresco Pty Ltd of Dry Creek, SA. The body shells are being built by Commonwealth Engineering at Granville, NSW and fitted out at Dry Creek.

Air conditioning is provided by two units in each car mounted above the vestibles and ducted into the passenger compartments. Single pane goldtinted glass is used to reduce heat admission and sun glare.

Powered by two underfloor MAN 373 kW diesels driving through Voith transmission, the cars are designed for easy conversion to electric operation.



General view of railcars shows underfloor MAN engines, elevated cab, and roof-mounted airconditioning

Double sleepers cut underground noise

Reprinted from Engineers' Australia -
25 January 1980

Reinforced concrete double sleepers will be supplied to the Melbourne Underground Rail Loop Authority (MURLA) under a second contract to be won by Hunes Ltd.

Soon after the Authority was established in 1971, it was recognised that there was a need to develop a new sleeper for the Underground. MURLA wanted to provide a track support system of sufficient mass to absorb the vibration

energy in the ground transmitted noise frequency range and to resiliently isolate these mass supports from the surrounding ground.

Work had already started on this problem overseas, in particular at Toronto, and this helped MURLA engineers to develop the new sleeper.

In conjunction with MURLA consultants, John Connell-Mott Hay and Anderson, Hatch, Jacobs, Humes produced a



Concrete double sleepers in the
Melbourne Underground Rail Loop

number of experimental sleepers to meet these requirements and in 1977 the world's first double sleeper system was placed in service as a test track.

Test showed the track system reduces ground vibration by 12 to 15 dB compared with timber sleeper and ballast

construction. The test track was successful and 3500 double sleepers were manufactured for the first stage of the MURLA track.

The firm is now manufacturing a further 4000 sleepers for the second stage and production should be completed by mid 1980.

Tarcoola-Alice line crosses NT border

by John Arbouw

Reproduced from Engineers' Australia - January 1980

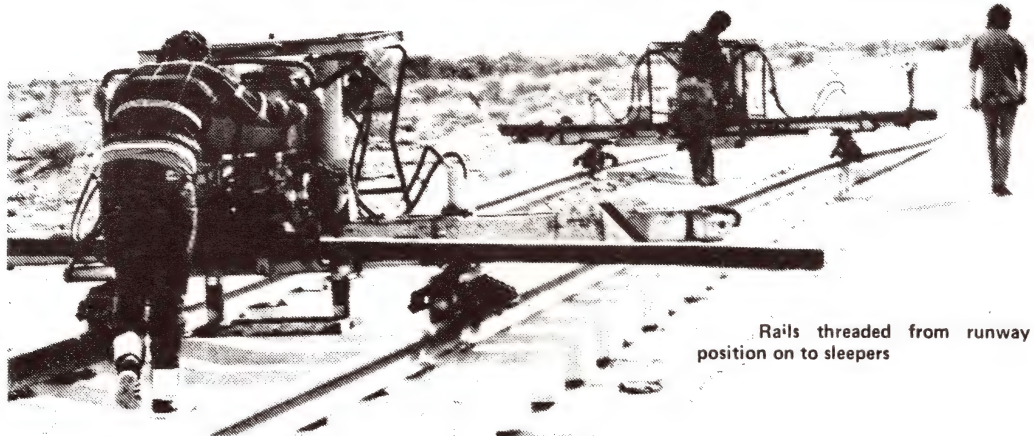
On 10 November the 831 km, \$145 million Tarcoola-Alice Springs railway passed an important milestone when it crossed the South Australian-Northern Territory border.

The all-weather standard gauge line is Australia's longest railway project since the Trans Australian Railway was completed in 1917.

It will connect the Alice to the standard gauge network at Tarcoola, on the Trans Australian Railway 400 km west of Port Augusta.

The new line, begun in April 1975, is expected to be finished next November, a year ahead of schedule and within cost estimates.

With it comes a renewed dream of a



Rails threaded from runway position on to sleepers

north-south rail link through the centre of Australia.

The possibility of extending the railway from Alice Springs to Darwin, considered several times in the past, is now being studied again.

But a decision to go ahead with such a project would probably require a Darwin population of more than 100 000 or major mineral or industrial development south of Darwin involving large scale rail transport.

The Tarcoola-Alice railway will replace the existing narrow gauge (1067 mm) line from Alice Springs to Marree, 300 km north of Port Augusta.

This narrow gauge railway, known as the Ghan (after Afghan camel drivers), can no longer cope with traffic demands, and is frequently flooded. As recently as last week, the Ghan was delayed by floods.

The new line will carry passengers from Adelaide to Alice Springs in less than one day, compared to the three days of the Ghan.

There will be no major stations between Tarcoola and Alice Springs.

To maintain the place of the Ghan railway in Australia's history, some of the existing rolling stock will be converted to standard gauge. Passenger trains on the new route will be known as Ghan trains.

The new route, about 150 km west

of the existing line, is near the edge of the Lake Eyre basin. It avoids many of the streams which now cause flooding and crosses others near their headwaters rather than in their flat lower reaches.

Although the new line is away from the numerous drainage channels of the lower Eyre basin, 10 principal bridges ranging from 100 to 450 m in length and 42 smaller bridges are being built.

The railway crosses only three main streams - the Albergo, Finke and Hugh, which all have high level bridges.

The biggest bridge on the line is over the Finke River. It has 1530 m steel plate girder spans, with cylindrical concrete piers on piled foundations extending to bedrock at 13 m depth.

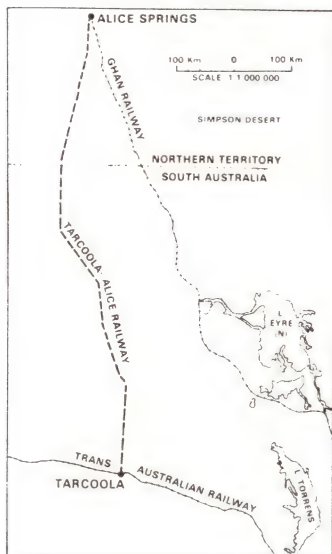
The bridge over the Hugh River has nine 30 m spans.

Most other bridges have 11 m and 16 m spans.

For the first 150 km north from Tarcoola to Chandler, the railway follows high and mainly level ground between the Lake Eyre basin and the Great Victorian Desert, diverging a little west of a direct line between Tarcoola and Alice Springs to bypass the rough and broken country of the eastern Everard Ranges.

Much of the line passes through

mulga woodlands on sandy and red earth plains interspersed by sections of undulating tablelands and by a few tracts of sand ridge country.



The general elevation rises progressively along the route from about 150 m above sea level at Tarcoola to 600 m at Alice Springs.

The terrain allows long sections of straight track with easy grades and large radius curves.

Father of the project is Australian National Railways Chief Civil Engineer Des Smith, a man who loves the outback almost as much as railways.

'Almost alone he has been responsible for the route of the new line having blazed the first trail in the late sixties and since then driven the entire length dozens of times, involving himself in surveying, bridge design, stockyard design and the building of communications networks and the new towns', said South Australian Transport Minister, Michael Wilson.

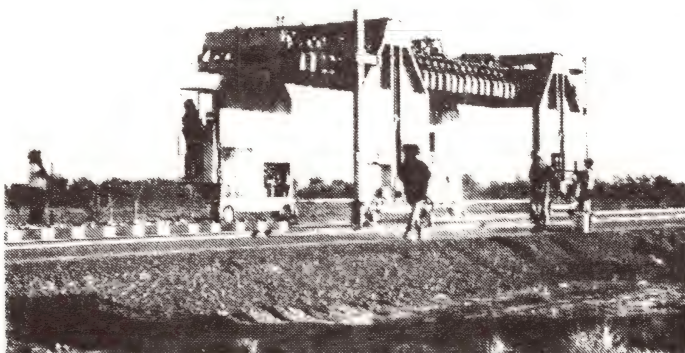
'The success of the project is due primarily to this man whom I envy a little for his ability to combine his free spirit and love of the outback with his professional knowhow and experience in controlling an engineering project of these dimensions.'

According to Smith, the railway has caught the imagination of everyone working on it.

'You wonder once you start a thing like this which has its own momentum, how in the hell you will stop it when the time comes', he said.

Smith considers one of the most innovative achievements was redesigning a French maintenance machine for laying, 40 at a time, the 1.3 million prestressed concrete sleepers to be used on the project. Their use is expected to save millions of dollars annually in maintenance, as they should last for at least 50 years.

Rail and sleeper laying methods devised in Australia by Australian National Railways engineers are laying the track up to 4 km a day.



Sleeper-laying machine in operation on Tarcoola-Alice line

Smith said the most economical method of track laying was by using sleeper laying gantries developed in Europe for relaying existing track.

'But we had to find a way of handling our long welded rails to enable the machine to be used', he said.

'The traditional method involved complex multiple handling of sleepers and then a very simple rail laying operation.

'That machine enabled us to have a very simple, single handling, sleeper laying operation but the risk was we'd have a very complex laying of rails', he said.

'Our unique feature, and no one else in the world has done this, is the method of handling and unloading large quantities of rail so as to make a runway on which you can use that sleeper laying machine and still have a fairly simple rail laying procedure.'

Rails are delivered to the site in 137m welded lengths on roller equipped flat wagons. They are pulled in layers of 14 onto trolleys which straddle the new track and travel on a 3520 mm gauge runway of rails.

The loaded trolleys are rolled forward to the end of the runway and the rails are then pulled off in pairs and laid out to progressively extend the runway.

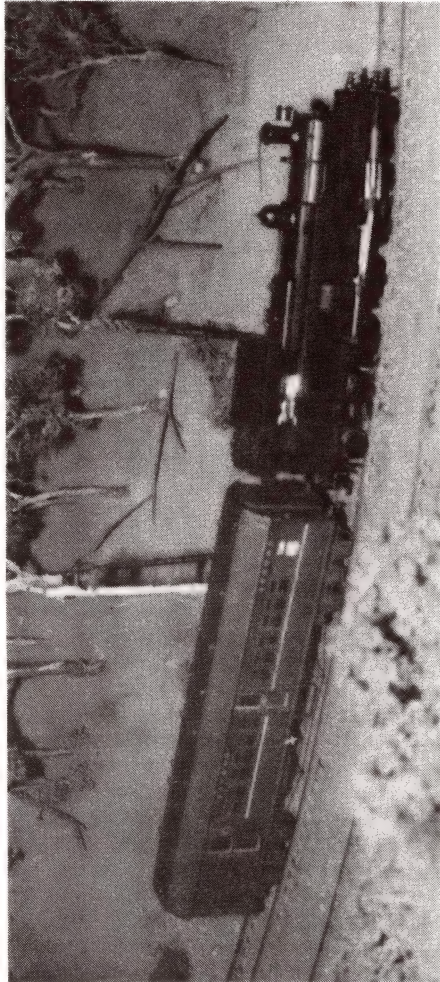
One pair of 137m service rails projects the runway back behind the end of the completed track to allow the gantries to straddle the sleeper train.

Sleepers are delivered to the rail-head of flat wagons each carrying 200. The gantries pick up a full layer of 40 sleepers, carry them forward and lay them in position in two drops of 20 each correctly spaced and aligned.

After sleepers have been laid for several rail lengths, the rails are moved by small rail threading machines from the runway position.

As the rails are laid, gaps are set between the ends to allow for stressing and expansion. Temporary fish plates are clamped into position.

Following the application of Pandrol

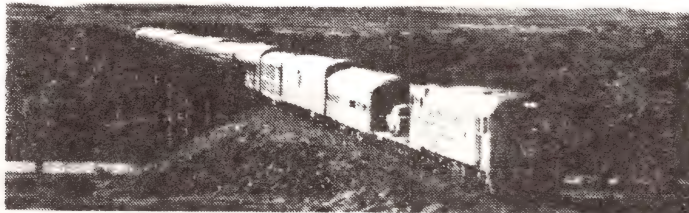


3034 heads a special at an AMRA exhibition in 1979
Photo taken on the Tickhole Tunnel Layout

Photos by P Ritchie

fastenings, the rails are stressed and thermit welded into continuous lengths and the track is completed by ballasting, lifting and tamping.

The first section, from Tarcoola to Robin Rise, was completed in 1976 by F T and B T Thomson of Adelaide. The second section, from Robin Rise to



The old and the new. Above: The famous Ghan train. Below: A train hauled by a GM class locomotive on the Tarcoola-Alice line.



Two lifts are made to give about 150 mm of ballast. A final lift of a further 50 mm will be made several months after traffic has used the track.

The communications system for the new line is microwave VHF radio with 300-channel capacity, of which 24 channels will be used initially.

The line itself is being constructed by ANR, with earthworks, bridges and culverts being carried out by private contractors in four main sections.

Marla Bore, was carried out by a joint venture of two South Australian firms, A W Boulderstone and Crawford Earthmovers.

The contracts for both the third and final sections went to another Adelaide-based company, Macmahon Constructions Pty Ltd.

An additional special contract for the two bridges over the Finke and Hugh Rivers went to John Holland (Constructions Pty Ltd.



FOR READER'S LETTERS

The Editor

Dear Rex

THE A.M.R.A.

What is it, where is it going, what can it do for me. As I see it, the Journal is the main reason for belonging to the AMRA, the Club premises being useless to the silent majority who can-

not use it due to distance, time, money, etc. AMRA is, I fear, stagnating and will surely die unless we pull our socks up. SO, WHAT TO DO?

1 THE JOURNAL

Too much is left on the shoulders of too few. We cannot expect our Editor and assistants to produce the Journal and write it as well. To my way of thinking the inclusion of Receipts and Expenditure, two Editorials (Editorial and Secretary's Desk), Branch Notes, photos of trade stands at Exhibitions, etc, etc, are not needed in Journal, and I believe (though I may be wrong) that the Editor has not received anything to put in their place. YOU MUST WRITE AN ARTICLE, HINT, TAKE A PHOTOGRAPH, NOW. Give the Editor something to work with.

If the AMRA is to have any credibility, the Journal MUST come out within SPECIFIED months of the year. I for one would like to know when I am to receive my next copy.

2 AMRA should provide an information service, consisting of each States' stock, giving the modeller a central base to start modelling any Australian system he/she desires. We should advertise it and charge for it.

3 AMRA STANDARDS

Having read Peter Betts' excellent articles on the subject, and having purchased the HO Gauge, how does one convert each existing wheel profile to AMRA standards, which wheels can't be converted, does AMRA provide a re-profiling service? What about HO n3-1/8" HO w5½? Most States did not use 4'8½" trackage. Should we publish two sets of Standards, the well thought out but still commercially oriented current standards, AND the Scale Standards as worked out by the Model Railway study group in England? Should not the AMRA Gauge be pushed through the hobby shops throughout the country to help advertise AMRA to all?

4 AMRA BOOKLETS

Time marches on and things change. I feel that we should publish our information in loose leaf form, such as can be placed in a ring binder. This way out of date items can be discarded or replaced easily and cheaply, and extra information easily added. The NMRA, P4, Scale four societies do this, and

I can see no better way for us to provide the Australian modeller with an up to date, comprehensive, modelling reference.

So let us all get off our backsides and get AMRA on the move.

R Comerford

The Editor

Dear Rex

My compliments on the sterling work you and your team do in the production of Journal.

I have been much impressed with the overall quality of the production and the increased number of photographs and detailed drawings you include.

I am an admirer of your typist whose work, I think, is superb. Having once tried to produce a typewritten/stencilled magazine, I know how tedious is the effort involved in justifying the right hand ends of all typewritten lines. But what a lift it gives the magazine to have that meticulous two-column format you employ. I wonder how many people appreciate the effort involved in such arduous typing. The fact that so few words are broken with hyphens at the end of lines - and that hyphenation is always correct - point to a good deal of skill on the part of your typist.

Knowing the need for contributions, I have felt guilty for some time now that I have not taken the trouble to help. I only hope that the enclosed piece will be of some use. I think it was Jack Makin's remarks in the latest Journal (No 138) that pushed me into the effort. Perhaps he will inspire others similarly.

Though you may not hear much evidence of it, believe me your continuing

efforts with Journal are much appreciated.

Sincerely
Jim Guinane

Your comments are appreciated - Helen

The Editor
AMRA Journal
Dear Rex

I have just spent a delightful time looking through all my old copies of Journal and seeing if there was something I could use in the reconstruction of the new proposed railway that I must build in the near future.

The 'Candemah Valley Railway' is to close fairly soon and as era has passed; an era which has given me many delightful hours with other modellers over 20 years or more.

While I was perusing the past issues of Journal I noted with surprise letters in 'Pop Valve' complaining about many things.

- 1 The lack of advantage to country members.
- 2 The lack of progress in the printing and publishing of Journal.
- 3 The lack of interesting articles.
- 4 The lack of simple articles for the beginner.
- 5 The lack of variety.
- 6 The money spent on 'Journal' when it could be spent in other ways.
- 7 The lateness of 'Journal' in recent times.

I would like to reply to all these people who have been complaining over all these years, and I have noted that the greatest lack of any seems to be that of constructive criticism. After that comes the lack of members who are willing to write articles or to persuade other members to do so. The lack of members who are willing to take office when positions become vacant. The lack of understanding of some mem-

bers to realise how much time and energy is given free, gratis and for nothing by the various office bearers throughout the Association. The lack of some members to realise that the more they put into anything the more they get out of it.

As I said at the beginning of this letter, I had a delightful time reading through old copies of Journal and I can truthfully say there is no lack of variety. There is no field that has not been covered. Further it is interesting to note the gradual changes that have occurred over the years - all for the better. The small number of members who have contributed to the Journal. The even smaller number who have written more than one article. The very small number who have contributed to the running of the Association, and the sacrifice of personal interests and private time for the benefit of other members.

As one of those members who had helped to make A.M.R.A. a worthwhile organisation, I speak very feelingly about the unselfish work that has been done by others, who have done so much more than I have, but I can only say that what I did I enjoyed doing, and if members could get half as much enjoyment from it as I have, the they too would find it well worthwhile.

The friends I have made over these years are friends that nothing could ever replace.

As a country member I have gained perhaps more than most city members, and because I have kept all my journals I have a reference library covering every aspect of railway modelling as applied to Australian conditions.

Sincerely
Cedric Rolfe



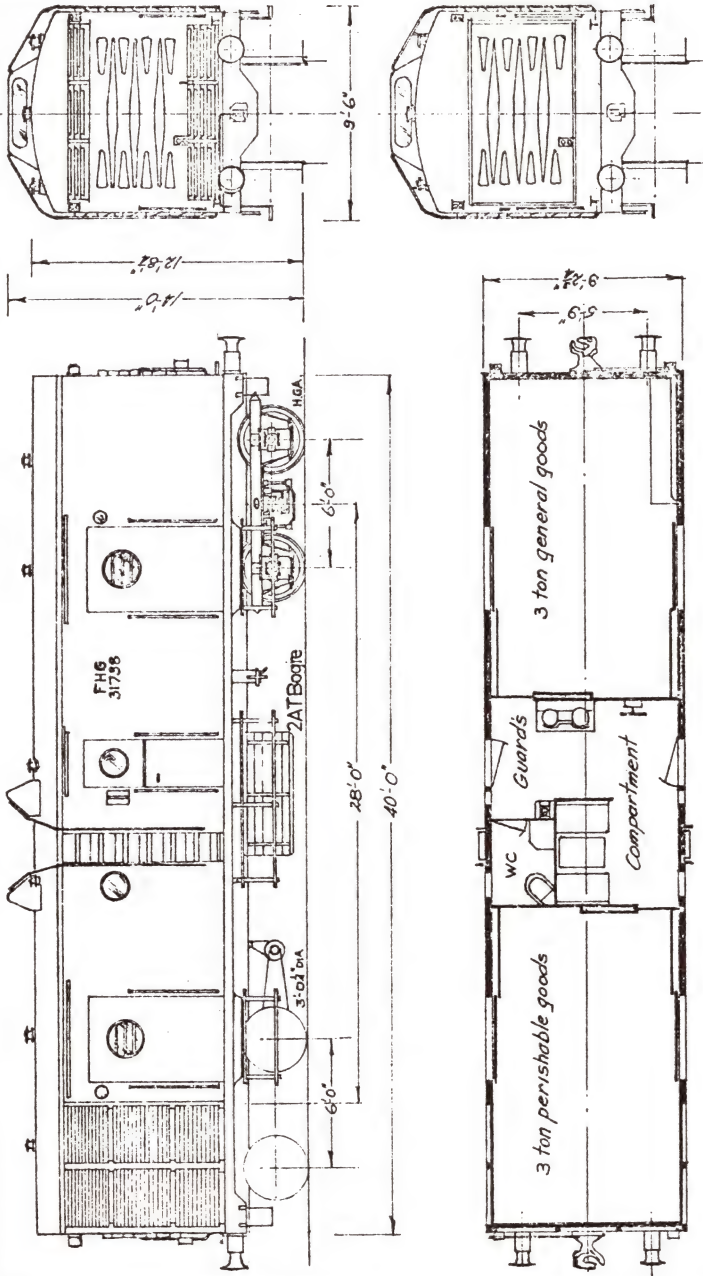
1919 at Richmond, NSW, on A.R.H.S. tour
1971

Photo by Keven Brown



3325 at Richmond, NSW, late 1960s

Photo by Kevin Brown



Tare 23 tons 2 cwt.
Coded NHG when built.

feet 10

Scale 3.5 mm = 1 foot.

N. S. W. G. R.

GOODS BRAKE VAN
CODE · FHG

Drawn *Highmore* PLAN SERVICE
Date *June 69*

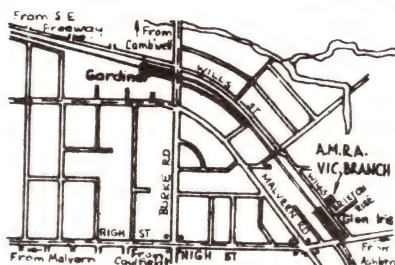


1623

BRANCH NOTES

VICTORIAN

BRANCH NOTES



The June meeting was the Annual General Meeting, and the following office bearers were elected:

President	Roger Lloyd
Vice President	Geoff Brown
Secretary	John Harry
Treasurer	Stuart Westerman
Committee	Ray Brownbill
	Neil Riches
	Bill Morehouse
	Graeme Nitz
	William Secker
	Brad Golding

Librarian Brian Southwell

The agenda for October to December is as follows:

OCTOBER

Thur 9	Modelling Water by Owen Ely Competition - Model of Railway Footbridge Running Day
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Sun 26

NOVEMBER

Thur 13	Signals by Bob Dunn Competition - Photo of Railway Footbridge Working Bee Running Day
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Sun 16

Sun 30

DECEMBER

Thur 11	Christmas meeting. Bring a plate (with something on it) Competition - Models for H G Armstrong Trophy
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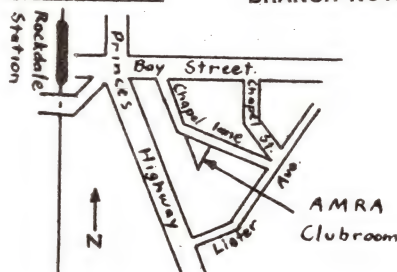
Running Days are on the last Sunday

of the month from 2 to 5 pm. Please come to the working bees. Remember that they are YOUR Clubrooms. Watch the Notice Board for details of SPECIAL ACTIVITIES. If there should be a power strike, contact John Harry on 570 4406 or Roger Lloyd on 459 6508 for information.

Graeme Nitz
Branch Reporter

NEW SOUTH WALES.

BRANCH NOTES



The following was the program for July and August:

JULY

Sat 5	Modelling Clinic - Solid State Controllers and layout operations
Fri 11	Slide night
Sat 19	Exhibition meeting for exhibitors
Fri 25	Modelling competition

AUGUST

Sat 2	First rolling stock scrutineering for exhibition
Fri 8	Layout operation - pre-1900 manufacture of prototype
Sat 16	Auction
Fri 22	Guest speaker Bruce Snowfoot on Railway Philately
Sat 30	General business meeting, followed by layout operation and scrutineering

Thank you to all those who attended
the A.G.M. and had their say in who

will be running the Branch for the next 12 months. Thank you also for the ideas put forward regarding the Federal Committee's problems with Journal. These have been forwarded to the Federal Secretary.

Craig Hartmann, who is now responsible for the Club's N Gauge layout, would like members to know that the layout is available for operation at most Branch meetings, using either the Club's rolling stock or your own N gauge equipment. If you have any (constructive) suggestions that may improve the layout, Craig is the man to see.

Graham Watson
Branch Reporter

Experiment to aircondition NSW suburban trains

Reprinted from Engineers' Australia -
25 January 1980

The NSW Government has ordered an eight-car air conditioned double deck train for the Sydney suburban network.

It will be used for a six-month trial in 1981 to determine whether suburban trains can be effectively air conditioned. The main stumbling block for air conditioning these trains is the frequent stopping and opening and closing of doors.

The contract for the eight carriages, work nearly \$5 million, was awarded to A Goninan and Co.

A.M.R.A. MERITORIOUS AWARDS up to 1980

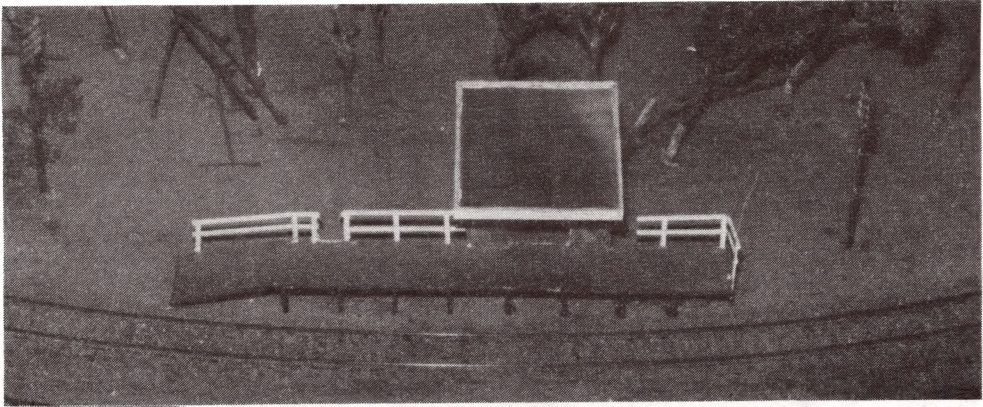
Ivor Bunker	Fyfe Thorpe
Bob Gorrell	Eric Lyon
Alan Dowel	John Skilton
Stephen Suggitt	Keith Robinson
Rex Little	Dot Treseder
Norm Read	Tony Gray
Jack Treseder	Jim Christie
Mal Baker	Jack Parker
John Sneddon	Rup Ackland
John Dunn	Bill Morehouse
Graham Larmour	George Bray
Ken Down	Arthur Hayes
David Ellis	Simon Mead
Arthur Robinson	John Harry
Bruce Lovett	Harold Warren
Eric Doherty	Cec Wall
June Larmour	Jack Eagles

AMRA NSW BRANCH MODELLING COMPETITION APRIL 1980

by Bob Gioia, Branch Reporter

Our first competition this year proved to be very successful, but we hope to see more next time. All the points given will be added up at the end of the year, and the person with the most points will become THE MODELLER OF THE YEAR.

Photos by Jack Parker

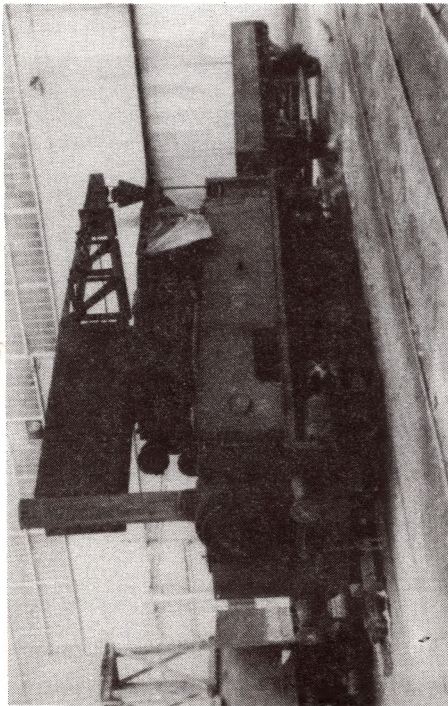


STRUCTURES - SCRATCHBUILT

1st Station Siding
(only entry)

Built by Victor Hogan

HO 4 points



Steam Crane No 11 at Ballarat Workshops

BUILDING MATERIALS IN HO SCALE

Corrugated sheets in .004" aluminium, .010" styrene and .006" copper. Tray (steel deck type) in .004" aluminium. Sheets 150 x 75mm. Aluminium — 10 for \$2.60. Styrene — 10 for \$3.10. Copper — 5 for \$4.00.

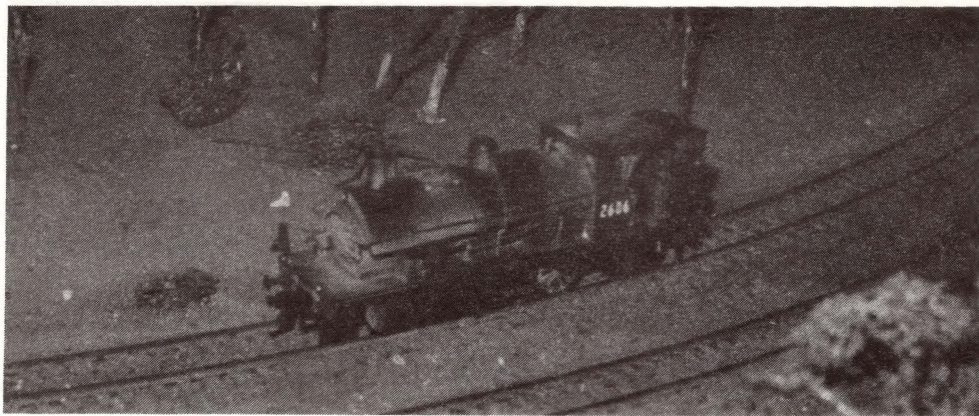
Timber sheets, simulated 8" and 12" plank and 6" weatherboard — Sheets 300 x 75mm — 5 for \$2.50.

Cork track underlay — 900 x 31 x 3mm — 5 strips for \$2.75.

All Post Paid — Aust.

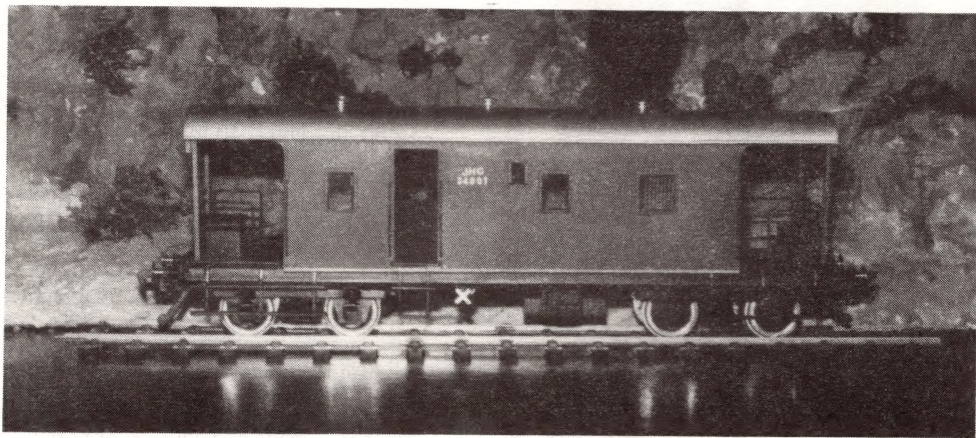
All sheets are to accurate 3.5mm scale, are locally made and equal to or better than imported.

G. DUNCAN
18 Waratah Avenue. Glenhuntly. VIC.
3163.



ROLLING STOCK - SCRATCHBUILT

1st	26 Class Loco	Built by Ken Dunkley	HO	4 points
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2nd	JHG Brake Van	Built by Bert Heatherington	O	3 points
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3rd	A Wagon and Workshop	Built by Bob Wardrop	HO	2 points
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4th	GRC	Built by Barry Flood	HO	1 point
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